ABSTRACT

A method for storing a full Red, Green, Blue (RGB) data set. A full RGB data set is three-color image data captured with an imager array formed on a semiconductor substrate and comprising a plurality of vertical-color-filter detector

5   groups. Each of the vertical color detector groups comprises three detector layers each configured to collect photo-generated carriers of a first polarity, separated by intervening reference layers configured to collect and conduct away photo-generated carriers of opposite polarity, the three detector layers being disposed substantially in vertical alignment with respect to one another and having different

10   spectral sensitivities. The three-color image data is then stored as digital data in a digital storage device without performing interpolation on the three-color image data.